

# Gender Role and Gender as Predictors of Behavior Problems in Children Exposed to Intimate Partner Violence

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**Abstract** Children exposed to intimate partner violence (IPV) are likely to develop behavior problems, but findings are mixed regarding whether girls and boys are differentially affected. Bem (*Journal of Personality and Social Psychology*, 31, 634–643, 1975) argued that gender role is an important predictor of mental health, and this relationship may differ for males and females due to societal gender norms. Given the gendered nature of IPV, we examined whether gender role interacted with gender to predict behavior problems in IPV-exposed children ( $n = 176$ ). Among four-year-old children, gender-typed gender roles were a risk factor for girls but not boys, and androgynous gender roles were protective for both boys and girls on average. However, *post hoc* analyses indicated the amount of IPV exposure mattered; androgynous girls exposed to chronic IPV had more behavior problems. Results illustrate the importance of societal and family gender norms in determining children's risk for behavior problems following exposure to IPV.

**Keywords** Gender role · Gender · Children · Behavior problems · Intimate partner violence

## Background

On average, children exposed to intimate partner violence (IPV) are at increased risk of internalizing (e.g., anxiety) and externalizing problems (e.g., aggression; see review by Evans et al. 2008), although not all IPV-exposed children experience these

negative outcomes (e.g., Martinez-Torteya et al. 2009). Gender is often examined as a possible risk or protective factor (see review by Kitzmann et al. 2003); however, findings are inconsistent, suggesting that gender groups are heterogeneous and other factors may predict children's risk for behavior problems.

The present research explored gender role as a risk or protective factor. We examined whether it had a main effect on internalizing and externalizing symptoms and/or whether it interacted with gender to influence these outcomes. On average, individuals with gender-typed gender roles have more mental health problems than those with androgynous gender roles (Bem 1974, 1975). However, gender role may influence mental health outcomes differently for males and females (Bem 1993; Young and Sweeting 2004). Four-year old children exposed to IPV were the participants in this research.

## Gender and Mental Health

In the broader literature, gender is differentially related to mental health outcomes (e.g., Johnson and Whisman 2013; Tsorbatzoudis et al. 2013). Biological differences between males and females (e.g., hormones) are sometimes cited as an explanation for these differences (e.g., Matsuzaka et al. 2013). However, gender socialization also plays a significant role. For example, males are reinforced for aggressive behavior (Fagot and Hagan 1985; Kingsbury and Coplan 2012), making them more likely to develop externalizing problems. Females are reinforced for prioritizing the needs of others (Cox et al. 2010), which may put them at greater risk of developing internalizing problems. A recent meta-analysis of children (ranging from infancy to adolescence) demonstrated that girls are more likely to exhibit internalizing, while boys are more likely to exhibit externalizing symptoms (Chaplin and Aldao 2013).

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These findings have led researchers to examine gender as a risk or protective factor for behavior problems in children exposed to IPV. However, the findings are inconsistent. Some studies find that girls exhibit more behavior problems (Cummings et al. 1999; Sternberg et al. 2006), while others find that boys exhibit more (Stagg et al. 1989). Some report that boys and girls are at risk for different types of behavior problems, with girls demonstrating more internalizing and boys demonstrating more externalizing problems (Baldry 2007; Evans et al. 2008). Still others find no gender differences (Litrownik et al. 2003; Zerk et al. 2009). These mixed findings indicate that gender groups are likely heterogeneous, despite similar biological processes or socialization experiences. Gender may interact with other related factors, such as gender role, to predict behavior problems.

### Gender Role and Mental Health

Gender role is the extent to which an individual exhibits characteristics that are socially normative for males or females (Bem 1975). An individual with a gender-typed gender role exhibits traits that are mostly consistent with his or her gender, such as a female with feminine traits (e.g., caring) or a male with masculine traits (e.g., independence). In contrast, an individual demonstrating characteristics that are mostly inconsistent with his or her gender (a female with masculine traits or a male with feminine traits) has a cross-gender-typed gender role. Finally, an individual with an androgynous gender role displays both masculine and feminine characteristics (Bem 1974; Bem et al. 1976). Males and females can demonstrate each of the three types of gender roles (e.g., Lefkowitz and Zeldow 2006).

The first five years of life is a crucial period in the development of children's gender roles (Ruble et al. 2007). Between 6 and 24 months, children recognize there are two sexes and begin to identify themselves and others as male or female (Hupp et al. 2010; Zosuls et al. 2009). Children begin to exhibit adherence to gender roles around 24 months, and these continue to develop rapidly between ages 3 and 5 (Halim et al. 2013; Poulin-Dubois et al. 2002). Overall, children often display gender-typed gender roles; however, cross-gender-typed and androgynous gender roles are more prevalent among girls than boys (Pasterski et al. 2015; Roberts et al. 2014; Sung et al. 2014). Children's gender roles are a significant part of their developing identities and self-perceptions and are closely related to children's attitudes and values (Bartini 2006; Knafo and Spinath 2011; Patterson 2012).

In contexts other than IPV, different types of gender roles can increase or decrease risk for mental health problems. On average, adolescents and adults with androgynous gender roles have more positive mental health and fewer mental health problems than those with gender-typed and cross-

gender-typed gender roles (e.g., Cox et al. 2010; Hoffman et al. 2004; Huang et al. 2012). According to Bem (1974, 1975), individuals with androgynous gender roles have a greater repertoire of behavioral responses, allowing them to respond effectively to the demands of various situations. This ability to adapt across situations may lead to less distress and ultimately more positive mental health (DiDonato et al. 2012). Conversely, the behavioral repertoire of individuals with gender-typed and cross-gender-typed gender roles is limited to behaviors that are consistent with their gender roles (Bem 1979, 1981; Bem and Lenney 1976). Thus, these individuals respond effectively in some situations, but not in others, increasing their likelihood of experiencing distress and mental health problems (Bem 1975; Bem et al. 1976). Research demonstrates that individuals with androgynous gender roles have more positive coping strategies than those with gender-typed or cross-gender-typed gender roles (Huang et al. 2012; Stake 1997), lending support to Bem's argument.

Individuals with gender-typed and cross-gender-typed gender roles are at greater risk for overall mental health problems, but the type of mental health problems they exhibit may depend on whether their gender role is primarily masculine or feminine. Individuals with feminine gender roles (gender-typed females and cross-gender-typed males) are more likely to exhibit internalizing symptoms, while those with masculine gender roles (gender-typed males and cross-gender-typed females) are more likely to demonstrate externalizing symptoms (Cox et al. 2010; Renk et al. 2005). In other words, the symptoms are consistent with the individual's gender role (Bem 1981; Bem and Lenney 1976). For example, individuals with feminine gender roles tend to be passive and value interpersonal relationships (Cox et al. 2010; Simonson et al. 2011), often prioritizing the needs of others over their own. When they experience distress, they are likely to keep this distress to themselves, or internalize the distress. On the other hand, individuals with masculine gender roles tend to demonstrate aggression and stoicism (Simonson et al. 2011); anger may be one emotion that they feel comfortable expressing (Cox et al. 2010). When these individuals experience distress, they are likely to avoid the emotional experience of the distress and instead cope with it by acting aggressively or engaging in other types of externalizing behavior.

The majority of studies on the association between gender role and mental health have focused on adolescents and young adults. As a result, less is known about the effect of gender role on behavior problems in early childhood. A few studies with children ages 6 to 13 have found results similar to those in adolescent and adult samples (Carter et al. 2011; DiDonato et al. 2012; Gini and Pozzoli 2006; Ginsburg and Silverman 2000; Granie 2010; Muris et al. 2005), but research has yet to examine how gender role relates to behavior problems prior to age 6. Given that gender roles begin to emerge around age two (Poulin-Dubois et al. 2002), we would expect to see an effect

of gender role on behavior problems beginning at this time. Despite the importance of gender role for predicting behavior problems, research on children exposed to IPV has not yet examined gender role as a risk or protective factor.

### Gender, Gender Role, and Mental Health

As has been discussed, both gender and gender role are important independent predictors of mental health problems (Cox et al. 2010; Priess et al. 2009; Simonson et al. 2011). However, when considered in the context of social norms, gender role may influence mental health outcomes differently for males and females (Bem 1984). There are two gender-related aspects of Western society that are particularly relevant (Bem 1993). The first is the tendency to view masculinity as the norm and femininity as a deviation from the norm or inferior. Feminine traits are valued and rewarded less than masculine traits, putting those who exhibit feminine traits at greater risk of experiencing challenges and distress, ultimately increasing their risk for mental health problems. The second is the tendency to use gender as a way to organize all aspects of life, resulting in scripts that prescribe how males and females are expected to act. Deviation from these scripts is considered problematic or even pathological (Wilbourn and Kee 2010). However, as masculine traits are more highly valued, it is more socially acceptable for females to deviate from their gender scripts than it is for males to do so (Kane 2006). In order to determine how gender role may influence mental health outcomes differently for boys and girls, research must consider these societal norms as well as how gender roles relate to flexibility and coping.

Taking these factors into account, cross-gender-typed gender roles may be associated with the greatest risk for behavior problems in boys. Peers, parents, and teachers enforce more restrictive rules for boys than for girls (Green et al. 2004; Kane 2006; O'Brien and Huston 1985; Wilbourn and Kee 2010); consequently, boys who deviate from social gender norms may be at risk of experiencing bullying or isolation from their peers (Drury et al. 2013) or feel ostracized by their parents or teachers. Cross-gender-typed boys also have a limited repertoire of skills to help them cope. While boys with gender-typed gender roles also suffer from this limited behavioral repertoire, they also exhibit traits that are considered normative and are likely at lower risk for isolation. Boys with androgynous gender roles benefit from demonstrating behavioral flexibility and thus more effective coping strategies, but may be viewed negatively by others for exhibiting feminine traits. Taken together, boys with cross-gender-typed gender roles may be at greater risk for behavior problems than those with gender-typed or androgynous gender roles.

A different picture emerges for girls. Girls with gender-typed gender roles have limited behavioral repertoires, and

those behaviors are not highly rewarded in society. However, these girls are at lower risk of being treated negatively for deviating from normative gender scripts. Girls with cross-gender-typed gender roles, on the other hand, demonstrate traits that are highly valued in society. Yet they have a limited behavioral repertoire and may be at risk of experiencing isolation from others. Androgynous girls are likely to demonstrate flexibility and positive coping, exhibit some traits that are rewarded by society, and are not likely to experience negative responses from others for their gender roles. Therefore, androgynous girls may be at the lowest risk of exhibiting behavior problems, while girls with gender-typed gender roles are likely at the highest risk.

Although gender role is expected to influence mental health differently for young boys and girls, the only research on this topic has been conducted with adolescents and adults. Some research has tested whether dimensions of gender role (i.e., femininity, masculinity) influence mental health differently for men and women (e.g., Palapattu et al. 2006; Young and Sweeting 2004). However, these studies did not examine androgynous gender roles (i.e., the interaction between masculinity and femininity), making it difficult to compare androgynous with gender-typed and cross-gender-typed gender roles. Other studies have measured androgynous gender roles as well as gender-typed and cross-gender-typed gender roles. Wells (1980) found that girls with androgynous gender roles have the greatest psychological well-being, while other studies found no significant interaction between gender and gender role (Cheng 1999; Lefkowitz and Zeldow 2006).

### Gender and Gender Role as Predictors of Mental Health in IPV-Exposed Children

In addition to societal gender norms, gender norms within the family context may also affect which gender roles are harmful or protective for boys and girls. IPV-exposed children, in particular, are likely to live in homes with traditional gender norms, as IPV occurs in a gendered context (Boonzaier 2008; McPhail et al. 2007; Morris 2009). For example, IPV can be considered an extreme and violent manifestation of male dominance over females (Birms et al. 1994) and is associated with men's gender role stress or challenges to their masculinity (Atkinson et al. 2005; Moore et al. 2010; Schwartz et al. 2005). Further, some forms of abuse target gender-typed gender roles (e.g., controlling how a female partner dresses, becoming physically violent if dinner is not ready when he gets home). As a result, children in this environment are likely exposed to a gendered distribution of labor and power – or traditional gender roles (Graham-Bermann and Brescoll 2000; Morris 2009; Phillips and Phillips 2010). In addition, perpetrators of IPV often demonstrate gender-typed gender roles (Fitzpatrick et al. 2004; Harris et al. 2005;

Lawson et al. 2010) and hold gender-stereotypic attitudes toward childrearing (e.g., boys should not cry, girls should be compliant; Kerig 1999; Maliken and Katz 2012). Therefore, children exposed to IPV are likely held to traditional gender expectations.

Given IPV-exposed children may be exposed to home environments with traditional gender norms, they are at risk for behavior problems if they deviate from expectations of their gender. One study found that internalizing problems were associated with gender-stereotypic attitudes in a sample of IPV-exposed children (Graham-Bermann and Brescoll 2000). However, this study aggregated across gender groups. They also assessed gender-stereotypical *beliefs*, which differs from the gender role a child embodies.

### Current Study

Gender is a commonly examined risk or protective factor for children exposed to IPV, yet findings regarding gender differences in behavior problems are mixed. These inconsistent findings indicate that broad gender groupings (i.e., boys vs. girls) are heterogeneous and must be examined in combination with other relevant factors. This study aims to clarify these mixed findings by examining how gender role may interact with gender to predict children's outcomes following IPV exposure. While research has demonstrated the importance of gender role in predicting mental health outcomes, gender role has never previously been tested as a risk or protective factor for children exposed to IPV. Societal and family gender norms make it likely that gender roles will influence behavior problems differently for boys and girls. The current study examined how gender, gender role, and the interaction between the two predict mental health outcomes of children living in households where IPV occurs.

The following hypotheses were tested in a sample of 4-year-old children whose exposure to IPV ranged from none to four years:

- (1) Gender and gender role would each have significant main effects on behavior problems when controlling for the other. (a) Girls would have more internalizing problems, while boys would have more externalizing problems. (b) Children with androgynous gender roles would have fewer behavior problems than other children. (c) The interaction between gender and gender role would influence behavior problems. Girls with gender-typed gender roles were expected to demonstrate higher internalizing problems than other girls, while girls with cross-gender-typed gender roles were expected to exhibit higher levels of externalizing problems than other girls. Boys with cross-gender-typed gender roles were

hypothesized to have more internalizing problems than other boys.

- (2) Gender and gender role would each significantly moderate the effect of IPV exposure on behavior problems. IPV exposure would have a stronger association with internalizing problems for girls and externalizing problems for boys. Androgynous gender roles would reduce the association between IPV exposure and both internalizing and externalizing problems.
- (3) The interaction between gender and gender role would moderate the effect of IPV exposure on internalizing and externalizing problems. The association between IPV exposure and internalizing and externalizing problems would be lower for girls with androgynous gender roles and boys with androgynous or gender-typed gender roles.

### Method

#### Participants

The current research was part of a larger, longitudinal study that examined the effects of IPV on women and their children (Bogat, Levendosky, & Davidson, 1999; Levendosky, Bogat, Davidson, & von Eye, 2000). Participants in the original sample were 206 pregnant women recruited from a tri-county area in a Midwestern state. The study intentionally recruited participants so that roughly half the women had experienced IPV during pregnancy. To participate in the original study, women were required to be between 18 and 40 years of age and have proficiency in English sufficient to complete questionnaires.

Participants were included in the current study if the mother and child participated in at least one of the relevant assessments (when the child was 1, 2, 3, and 4 years old), yielding a sample of 194 children (99 boys, 95 girls). One hundred eighty-nine children (97 % of the sample) participated at age 1, 185 (95 %) at age 2, 178 (92 %) at age 3, and 176 (91 %) at age 4. Eighty-six percent of the sample ( $n = 167$ ) participated in all 4 waves of data collection, 7 % ( $n = 14$ ) participated in 3 waves, 3 % ( $n = 5$ ) participated in 2 waves, and 4 % ( $n = 8$ ) participated in 1 wave. Forty-seven percent of the children were White, 25 % African American, 24 % multiracial, 1.5 % Latino/Hispanic, 1.5 % Native American, and 1 % Asian American. When children were age 4, the average monthly family income was \$2528 ( $SD = \$1942$ ).

#### Measures

**Intimate Partner Violence** The Severity of Violence against Women Scale was administered to assess acts of psychological, physical, and sexual violence a woman might experience from her partners (SVAWS; Marshall 1992). Respondents



noted the frequency with which each of the 46 events occurred, on a 4-point scale ranging from “never” to “many times.” Sample items include “pushed or shoved you” and “choked you.” At each time point, when children were ages 1, 2, 3, and 4, mothers reported whether they experienced any of the events in the previous year. Children were assigned a score based on the number of years they were exposed to IPV (range 0 to 4). This measure demonstrated high reliability in the current sample ( $\alpha$  ranged from 0.94 to 0.95).

**Gender Role** The Sex Role Preference (SRP) scale from the Sex Role Learning Index was used to assess children’s gender role at age 4 (Edelbrock and Sugawara 1978). Children were presented with an array of 10 line drawings of children engaging in activities that are stereotypically masculine (car play, hammering, digging, baseball, and boxing) or feminine (cooking, ironing, sewing, dishwashing, and sweeping). Children were asked to remove the picture of the activity they would most like to do and then continued selecting activities until all pictures had been removed.

The SRP score was based on the order in which the child chose items considered normative for his or her gender and the probabilities of making those choices. Since five of the ten items are gender-typed, the probability of the first choice being gender-typed ( $P_a$ ) is .50. This probability then changes every time a child chooses an item. For example, if a child’s first choice is cross-gender-typed,  $P_a$  for the second choice is .56. When chances of making a gender-typed choice are high, scores received for choosing a gender-typed item is low because it may represent random choosing. However, when the probability of making a gender-typed choice is low (e.g., when only one of six remaining items is gender-typed), scores for gender-typed choices are higher as it indicates a departure from what is expected by chance (a cross-gender-typed choice). The inverse of the sum of the probabilities of the gender-typed items ( $1/\sum P_a$ ) was calculated for each child to assess preference for gender-typed items. Scores were then standardized ( $M = 50, SD = 10$ ), resulting in a range of scores from 20 to 80. A score of 80 represents maximum gender-typed gender roles, a score of 50 represents androgynous gender roles, and a score of 20 represented maximum cross-gender-typed gender roles. Children were then assigned to gender role groups based on their SRP scores. Children with scores between 40 and 60 (1 SD above and below the mean) were classified as having androgynous gender roles, children with scores above 60 were classified as having gender-typed gender roles, and children with scores below 40 were classified as having cross-gender-typed gender roles.

In order to reduce scoring error, two coders scored each child’s SRP data. When there was a disagreement in scores, the coders discussed the disagreement to determine where the error occurred and resolve the score.

**Behavior Problems** The Child Behavior Checklist assessed children’s behavior problems at age 4 (CBCL; Achenbach 1991). Mothers reported the frequency at which their children exhibited each item. Two scales from the CBCL were used in the current study: internalizing problems (e.g., “too fearful or anxious,” “withdrawn”) and externalizing problems (e.g., “destroys things that belong to others,” “screams a lot”). High scores on each scale reflect more behavioral problems. This measure demonstrated adequate reliability in the current sample (internalizing  $\alpha = 0.69$ , externalizing  $\alpha = 0.85$ ).

**Procedure**

This study was approved by the Institutional Review Board at Michigan State University. Participation was voluntary. Women provided informed consent to participate in the study, and children gave their assent. Assessments were conducted at the project offices by trained research assistants. The IPV questionnaires were administered last to ensure that interviewers were blind to the woman’s IPV status as long as possible. Women were paid for their participation.

**Results**

Missing data were imputed using maximum likelihood estimation methods. Six percent of the data were missing, and data were missing at random (MCAR statistic =215.41,  $df = 185, p = 0.06$ ). No significant differences emerged between participants with and without missing data on any variables used in the present study.

The number of children in each group is presented in Table 1. Given the small number of boys with cross-gender-typed gender roles ( $n = 2$ ), all children with cross-gender-typed gender roles were excluded from the analyses. Comparisons were made only between children with gender-typed and androgynous gender roles (total  $n = 176$ ). The average number of years children were exposed to IPV was 1.68 ( $SD = 1.45$ ). Twenty-eight percent of children ( $n = 55$ ) were never exposed to IPV, 22 % ( $n = 43$ ) were exposed to IPV for 1 year, 18 % ( $n = 34$ ) were exposed to IPV for 2 years, 16 % ( $n = 20$ ) were exposed to IPV for 3 years, and 17 % ( $n = 32$ ) were exposed to IPV for 4 years. The mean level of internalizing problems was

**Table 1** Number of children in gender and gender role groups

|       | Gender-Typed | Cross-gender-typed | Androgynous | Total |
|-------|--------------|--------------------|-------------|-------|
| Boys  | 45           | 2                  | 52          | 99    |
| Girls | 11           | 16                 | 68          | 95    |
| Total | 56           | 18                 | 120         |       |

2.11 ( $SD = 2.22$ ) and externalizing problems was 8.21 ( $SD = 5.81$ ).

Analyses controlled for family income at age 4, as socioeconomic status is associated with exposure to IPV, behavior problems, and gender role (Ex and Janssens 1998; James et al. 2013; Marks et al. 2009; Reiss 2013). Correlations were examined between the variables of interest as well as with family income. Exposure to IPV was positively correlated with externalizing problems ( $r = .25, p < .05$ ). Externalizing and internalizing problems were positively correlated with each other ( $r = .66, p < .05$ ). Family income was negatively associated with IPV exposure ( $r = -.29, p < .05$ ) and externalizing problems ( $r = -.27, p < .05$ ). Income was also correlated with gender role, such that higher income was associated with gender-typed gender roles ( $r = -.24, p < .05$ ). Chi square analyses indicated that gender and gender role were significantly associated ( $\chi^2 = 21.16, df = 1, p < .05$ ); more girls exhibited androgynous gender roles than expected by chance, while more boys exhibited gender-typed gender roles than expected by chance.

The first hypothesis predicted significant main effects of gender and gender role and a significant interaction between gender and gender role on behavior problems. Two-way analyses of covariance (ANCOVA) were conducted separately for internalizing and externalizing problems, controlling for income. The ANCOVA for internalizing problems indicated no significant effect of gender [ $F(1,171) = 2.72, p = .10$ ], gender role [ $F(1,171) = 1.45, p = .23$ ], or their interaction [ $F(1,171) = 1.73, p = .16$ ]. The ANCOVA for externalizing problems indicated significant main effects of gender and gender role, as well as a significant interaction between the two (see Table 2). Girls ( $\bar{x} = 8.63, SD = 6.40$ ) demonstrated higher levels of externalizing problems than boys ( $\bar{x} = 7.86, SD = 5.30$ ), and children with androgynous gender roles ( $\bar{x} = 8.24, SD = 5.46$ ) had higher levels of externalizing problems than children with gender-typed gender roles ( $\bar{x} = 8.14, SD = 6.56$ ). *Post-hoc* ANCOVAs examined differences in gender role groups separately for boys and girls. Girls with gender-typed gender roles ( $\bar{x} = 12.73, SD = 9.94$ ) had more externalizing problems than girls with androgynous gender roles [ $\bar{x} = 7.97, SD = 5.45; F(1,76) = 5.82, p < .05$ ]. There was no significant difference between

boys with gender-typed ( $\bar{x} = 7.02, SD = 4.98$ ) and androgynous ( $\bar{x} = 8.59, SD = 5.50$ ) gender roles [ $F(1,94) = 0.19, p = .66$ ].

The second hypothesis was that gender and gender role would each moderate the association between IPV exposure and behavior problems. Linear regressions were run separately for internalizing and externalizing problems. IPV was grand-mean centered before creating the interaction terms with gender and gender role. Results indicated that neither gender nor gender role significantly moderated the effects of IPV exposure on behavior problems (see Table 3).

The third hypothesis was that the interaction between gender and gender role would moderate the association between IPV exposure and behavior problems. IPV was grand-mean centered before creating the interaction terms, and linear regression models were run separately for internalizing and externalizing problems. Results indicated the three-way interaction between IPV, gender, and gender role was not significant for either outcome (see Table 4).

### Post Hoc Analysis

Prior research indicated that the number of years a child was exposed to IPV influenced risk or resilience (Martinez-Torteya et al. 2009). Because the current analyses included only a summed, total frequency of IPV exposure across 4 years, we examined this issue further using person-oriented analyses. The person-oriented approach assumes that individuals are unique and their behavior can be better understood by examining the pattern of variables within individuals, as opposed to the relationships among the variables themselves (e.g., Bergman and Andersson 2010; Bergman and Magnusson 1997). Thus, a *post-hoc* person-centered analysis was conducted to identify patterns of variables that exist within this heterogeneous sample of children.

Configural frequency analysis (CFA) is a categorical data analysis technique where each level of each variable is crossed with the others (von Eye 2002; von Eye et al. 2010; von Eye et al. 1996). The analysis identifies types and antitypes, which indicate a relationship among specific configurations of variables. Types are configurations of variables that occur more frequently than expected by chance, while antitypes are those

**Table 2** ANOVA for externalizing problems by gender and gender role

|                      | Type III sum of squares | <i>df</i> | MSE    | F     | <i>p</i> |
|----------------------|-------------------------|-----------|--------|-------|----------|
| Income               | 399.76                  | 1         | 399.73 | 13.11 | 0.00     |
| Gender               | 140.55                  | 1         | 140.55 | 4.61  | 0.00     |
| Gender role          | 133.94                  | 1         | 133.94 | 4.39  | 0.03     |
| Gender x Gender role | 232.15                  | 1         | 232.15 | 4.61  | 0.04     |
| Residual             | 5215.70                 | 171       | 30.50  |       | 0.01     |

Gender: 1 = male, 0 = female. Gender role: 1 = androgynous, 0 = gendertyped

**Table 3** Linear Regression Models Demonstrating Moderating Role of Gender and Gender Role on Relationship between IPV and Behavior Problems

|                   | Internalizing Problems |       | Externalizing Problems |       |
|-------------------|------------------------|-------|------------------------|-------|
|                   | $\beta$                | $R^2$ | $\beta$                | $R^2$ |
| Income            | -0.85                  | 0.03  | -0.20*                 | 0.11* |
| IPV               | -0.01                  |       | 0.12                   |       |
| Gender            | -0.07                  |       | -0.02                  |       |
| Gender x IPV      | 0.12                   |       | 0.09                   |       |
| Income            | -0.13                  | 0.04  | -0.25*                 | 0.12* |
| IPV               | -0.09                  |       | 0.08                   |       |
| Gender role       | -0.03                  |       | -0.07                  |       |
| Gender role x IPV | 0.21                   |       | 0.13                   |       |

\* $p < 0.05$

that occur less frequently than expected by chance. A first-order CFA base model assumes that the variables are not associated among themselves, and it accounts only for their individual main effects. Significant deviations from the model (types or antitypes) are obtained based on the comparison of observed and estimated frequencies of each configuration and indicates second-order interactions among the variables.

Four categorical variables were included to create configurations: gender (1 = girls, 2 = boys), IPV exposure (1 = 0 years, 2 = 1 year, 3 = 2 to 4 years), gender role (1 = gender-typed, 2 = androgynous), and externalizing problems (1 = low [less than or equal to 50 T], 2 = high [greater than 50 T]). A 2 (gender) × 3 (IPV exposure) × 2 (gender role) × 2 (behavior problems) cross-classification yielded 24 different configurations. For example, configuration 1211 represented girls exposed to IPV for one year with gender-typed gender roles and low externalizing problems.

**Table 4** Linear regression models of gender and gender role interaction as moderator of relationship between IPV and behavior problems

|                            | Internalizing problems |       | Externalizing problems |       |
|----------------------------|------------------------|-------|------------------------|-------|
|                            | $\beta$                | $R^2$ | $\beta$                | $R^2$ |
| Income                     | -0.11                  | 0.07  | -0.22*                 | 0.17* |
| IPV                        | -0.47                  |       | -0.23                  |       |
| Gender                     | -0.21                  |       | -0.40*                 |       |
| Gender role                | -0.17                  |       | -0.40*                 |       |
| Gender role x IPV          | 0.45                   |       | 0.38                   |       |
| Gender x IPV               | 0.35                   |       | 0.30                   |       |
| Gender x Gender role       | 0.18                   |       | 0.45*                  |       |
| Gender x Gender role x IPV | -0.15                  |       | -0.19                  |       |

Problems \* $p < 0.05$ . Gender: 1 = male, 0 = female. Gender role: 1 = androgynous, 0 = gender-typed

To protect alpha, the z-test with Holland-Copenhaver protection for Type I errors was used. The base model was not a good fit for the pattern of cell frequencies ( $LR \chi^2 (18, n = 176) = 59.90, p = 0.000$ ), which indicates the results cannot be accurately explained by the main effects, and local associations among the variables (types and/or antitypes) are expected to emerge. Two significant types were found (see Table 5): (1) boys with no IPV exposure, gender-typed gender roles, and low levels of externalizing problems; and (2) girls with 2–4 years of IPV exposure, androgynous gender roles, and high levels of externalizing problems.

### Discussion

Results from the current study demonstrate the importance of examining children’s gender role as a risk or protective factor for behavior problems in children exposed to IPV. Due to societal expectations for each gender, the types of gender role that were associated with behavior problems differed for boys and girls. However, the effects of gender role on children’s outcomes also depended on the chronicity of IPV to which children were exposed. While androgynous gender roles were protective for boys and girls on average, they were a risk factor for girls exposed to chronic IPV. As chronic IPV is likely associated with a highly gendered home environment, these findings suggest that gender norms at both macro (societal) and micro (family) levels influence which gender roles are a risk factor for boys and girls.

As predicted, gender role influenced mental health outcomes differently for boys and girls. Without consideration of exposure to IPV, girls with gender-typed gender roles demonstrated higher levels of externalizing problems than girls with androgynous gender roles or boys with either type of gender role. This finding demonstrates the detrimental effects of gender norms in which femininity is considered inferior (Bem 1993). Boys with gender-typed and androgynous gender roles exhibited similar levels of behavior problems, suggesting that deviating from gender norms may not be considered problematic if boys demonstrate both masculine and feminine behaviors. Boys with cross-gender-typed gender roles are likely to demonstrate more behavior problems than other boys because it is considered less acceptable for boys (compared to girls) to demonstrate gender-inconsistent behavior (Green et al. 2004; Kane 2006; Wilbourn and Kee 2010). However, considering the few number of boys who demonstrated cross-gender typed gender roles ( $n = 2$ ), the current study was unable to examine this hypothesis. The small number of boys exhibiting these gender roles is consistent with other research (e.g., Fulcher et al. 2008). However, boys with cross-gender-typed gender roles are an important population on which to focus future research, given they may be the most vulnerable to experiencing adverse outcomes (e.g., Kane 2006).

**Table 5** CFA: gender, IPV, gender role, externalizing problems

| Cell Index |              |              |               | CFA   |       |       |                |
|------------|--------------|--------------|---------------|-------|-------|-------|----------------|
| Gender     | IPV Exposure | Gender Role  | Ext. Problems | $f_o$ | $f_e$ | $z$   | $p$            |
| Girl       | 0 years      | Gender-Typed | Low           | 2     | 4.14  | -1.05 | 0.147          |
| Girl       | 0 years      | Gender-Typed | High          | 3     | 3.00  | 0.00  | 0.499          |
| Girl       | 0 years      | Androgynous  | Low           | 10    | 8.87  | 0.38  | 0.352          |
| Girl       | 0 years      | Androgynous  | High          | 4     | 6.43  | -0.96 | 0.169          |
| Boy        | 0 years      | Gender-Typed | Low           | 15    | 5.08  | 4.40  | <b>T 0.000</b> |
| Boy        | 0 years      | Gender-Typed | High          | 2     | 3.69  | -0.88 | 0.190          |
| Boy        | 0 years      | Androgynous  | Low           | 11    | 10.89 | 0.03  | 0.487          |
| Boy        | 0 years      | Androgynous  | High          | 3     | 7.90  | -1.74 | 0.041          |
| Girl       | 1 year       | Gender-Typed | Low           | 2     | 3.39  | -0.76 | 0.225          |
| Girl       | 1 year       | Gender-Typed | High          | 0     | 2.46  | -1.57 | 0.058          |
| Girl       | 1 year       | Androgynous  | Low           | 9     | 7.27  | 0.64  | 0.261          |
| Girl       | 1 year       | Androgynous  | High          | 6     | 5.28  | 0.32  | 0.376          |
| Boy        | 1 year       | Gender-Typed | Low           | 9     | 4.17  | 2.37  | 0.009          |
| Boy        | 1 year       | Gender-Typed | High          | 2     | 3.02  | -0.59 | 0.278          |
| Boy        | 1 year       | Androgynous  | Low           | 9     | 8.93  | 0.02  | 0.491          |
| Boy        | 1 year       | Androgynous  | High          | 4     | 6.48  | -0.97 | 0.165          |
| Girl       | 2–4 year     | Gender-Typed | Low           | 1     | 7.04  | -2.28 | 0.011          |
| Girl       | 2–4 year     | Gender-Typed | High          | 3     | 5.10  | -0.93 | 0.176          |
| Girl       | 2–4 year     | Androgynous  | Low           | 17    | 15.08 | 0.50  | 0.310          |
| Girl       | 2–4 year     | Androgynous  | High          | 22    | 10.94 | 3.35  | <b>T 0.000</b> |
| Boy        | 2–4 year     | Gender-Typed | Low           | 7     | 8.64  | -0.56 | 0.289          |
| Boy        | 2–4 year     | Gender-Typed | High          | 10    | 6.27  | 1.49  | 0.068          |
| Boy        | 2–4 year     | Androgynous  | Low           | 10    | 18.51 | -1.98 | 0.024          |
| Boy        | 2–4 year     | Androgynous  | High          | 15    | 13.43 | 0.43  | 0.334          |

LR  $\chi^2$  (18,  $n = 176$ ) = 59.90,  $p = 0.000$ ;  $f_o$  = observed frequency;  $f_e$  = expected frequency; T = type

It was expected that children would exhibit behavior problems consistent with their gender roles. Counter to this prediction, the current study found that girls with gender-typed gender roles demonstrated risk for externalizing, but not internalizing, behavior problems. This may be due to the low rate at which 4-year-old children demonstrate internalizing problems, given that internalizing problems are more difficult for parents to observe in this age group (Grills and Ollendick 2002; Litrownik et al. 2003; Mathiesen et al. 2009). This pattern was observed in the current sample, with children exhibiting higher levels of externalizing symptoms ( $\bar{x} = 8.21$ ,  $SD = 5.81$ ) than internalizing symptoms ( $\bar{x} = 2.11$ ,  $SD = 2.22$ ).

Given the importance of gender and gender role in predicting children's behavior problems, it was expected that these factors would serve as risk or protective factors following exposure to IPV. Variable-oriented analyses indicated that neither gender nor gender role significantly moderated the effect of IPV exposure on behavior problems. However, post hoc person-centered analyses demonstrated a complex relationship between IPV exposure and children's outcomes. Results indicated that girls exposed to IPV for 2–4 years and

who exhibited androgynous gender roles demonstrated high levels of externalizing problems. This indicates that the association between gender roles and externalizing problems depends on the chronicity of IPV to which girls are exposed (c.f., Martinez-Torteya et al. 2009). Aggregating data across all IPV-exposed children concealed these findings.

These results suggest that gender norms within both the family and larger societal context may be important for understanding how gender and gender role predict behavior problems. The presence of IPV in the home is indicative of a traditionally-gendered home environment. For example, male perpetrators of IPV demonstrate gender-typed gender roles and traditional gender beliefs (Fitzpatrick et al. 2004; Harris et al. 2005; Lawson et al. 2010); this is especially true for men who perpetrate IPV that is severe, chronic, and characterized by controlling behaviors (Holtzworth-Munroe et al. 2000; Lawson et al. 2010). These controlling behaviors may include insisting that a partner follows strict rules (e.g., adhering to traditional gender roles), rules that children exposed to this type of IPV may also be expected to follow (Morris 2009). Children exposed to chronic psychological control report that they are constantly afraid of the consequences that may result



if they do not follow these rules (Overlien 2013). If perpetrators of chronic IPV hold strict gender expectations for their partners and children, girls may be expected to act feminine. Therefore, girls with androgynous gender roles may experience persistent fear of consequences for violating these gendered rules, putting them at risk for behavior problems.

While androgynous gender roles were protective for girls on average, these gender roles were a risk factor for girls exposed to chronic IPV. These findings demonstrate how gender norms across multiple levels of the child's environment (e.g., societal and family context) affect how gender and gender role relate to well-being. Androgynous gender roles allow girls not exposed to IPV greater flexibility in coping and are still within expected gender norms. However, when girls are exposed to highly gendered and abusive family contexts, they may have a greater fear of deviating from family gender norms, making them more likely to develop behavior problems if they do not exhibit gender-typed gender roles.

This study has some limitations. First, we argued that children exposed to IPV are raised in traditionally gendered environments, and that parents' beliefs about gender would affect whether children's gender roles are a risk or protective factor. However, we did not assess for parental gender roles or beliefs in the current study. Additional research should test whether parental gender attitudes and associated parenting practices affect whether certain gender roles are harmful or protective for boys and girls. Second, only male-perpetrated IPV was assessed. However, IPV is often bi-directional or perpetrated by both the male and female partner (Langhinrichsen-Rohling et al. 2012). Whether the IPV is unidirectional or bi-directional may affect the gendered norms and expectations within the home. Thus, future research should examine whether the risk/protective function of gender roles differs in homes with unidirectional versus bi-directional IPV. Third, the sample size prevented us from testing certain hypotheses (e.g., related to cross-gender-typed gender roles). These hypotheses should be re-tested in a larger sample.

In conclusion, the current research increased knowledge of risk and protective factors that may explain variability in IPV-exposed children's behavior problems, including gender, gender role, and chronicity of IPV. Findings highlight how social expectations for boys and girls, as well as gender norms within the family, influence whether particular gender roles are beneficial or harmful for children's well-being. This research also demonstrated the benefit of person-oriented approaches that can identify unique patterns of risk and protective factors that traditional variable-oriented approaches cannot. IPV researchers are encouraged to move away from solely testing gender differences and instead consider how gender interacts with gender role to predict children's outcomes following different dosages of IPV exposure during childhood. A better understanding of the factors that predict risk and resilience in children exposed to IPV can help identify children most

at-risk of developing behavior problems and inform interventions that target risk factors and promote positive adaptation.

### Compliance with Ethical Standards

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